

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**APPLICANTS:** E. K. Ohriner et al

**DOCKET NO :** 1318

**SERIAL NO.:**

**ART UNIT:**

**FILED:**

**EXAMINER:**

**TITLE:** Tungsten Alloy High Temperature Tool Materials

**INFORMATION DISCLOSURE STATEMENT under 37 CFR 1.56 and 1.97**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Sir:

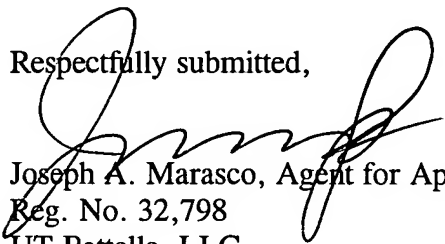
Submitted herewith on Form PTO-1449 is a listing of documents known to applicant in order to comply with applicant's duty of disclosure pursuant to 37 C.F.R. § 1.56. A copy of each document is being submitted herewith to comply with the provisions of 37 C.F.R. §§ 1.97 and 1.98.

Applicant presents these references that the Patent Office may determine any relevancy thereof to the presently claimed invention.

Applicant respectfully requests that the references be expressly considered during the prosecution of the subject application and made of record therein and appear among the "references cited" on any patent to issue therefrom.

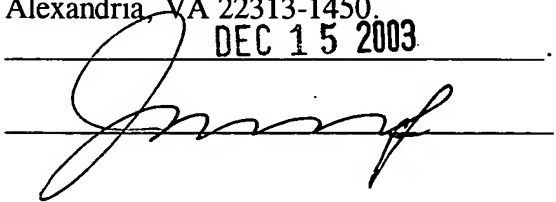
Applicant also requests that an initialed copy of Form PTO-1449 be returned in accordance with MPEP Section 609.

Respectfully submitted,

  
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)	<b>Applicant Number</b>				
	<b>Filing Date</b>				
	<b>First Named Inventor</b>		E. K. Ohriner		
	<b>Art Unit</b>				
	<b>Examiner Name</b>				
<b>Sheet</b>	1	of	1	<b>Attorney Docket Number</b>	1318

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	1	YUN, H. M., "Effect of Composition and Microstructure on the Creep & Stress-Rupture Behavior of Tungsten Alloy Wires at 1366-1500 K," Mat.Sci. & Eng. A165, p. 65-74 (1993)	
	2	TSAO, B. H. et al, "Fracture-Resistant Ultralloys for Space-Power Applications: Normal-Spectral-Emissivity & Electron-Emission Studies of Tungsten, Rhenium, Hafnium-Carbide Alloys at Elevated Temperatures," Engineering Fracture Mechanics, Vol. 35, No. 6, pp. 1049-1059 (1990)	
	3	LUO, A. et al "Hafnium Carbide Strengthening in a Tungsten-Rhenium Matrix at Ultrahigh Temperatures," Acta Metall.Mater. Vol. 40, No. 9, pp. 2225-2232 (1992)	
	4	KLOPP, W. D. et al, "Mechanical Properties of Arc-Melted Tungsten-Rhenium-Hafnium-Carbon Alloys," NASA Technical Note NASA TN D-5348, National Aeronautics & Space Administration Washington, D. C., (July 1969)	

<b>Examiner Signature</b>	<b>Date Considered</b>
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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